



February 12, 2006

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Federal Communications Commission
445 12th Street, SW
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RE: Request for Comments on Processes for Auction 66 (DA 06-238)

Commissioners and Staff:

The author is primarily interested in enterprise processes and infrastructure, which typically are based on “unlicensed” spectrum or purchased WAN services. However, licensed spectrum is potentially of wider significance in the enterprise environment. Certainly, the FCC’s band plan strategies open up opportunities for wider use of licensed spectrum between enterprises and their customers as well as within enterprises.

Below are a summarized and a lengthier commentary regarding the auction (and pre-auction) process itself. The unifying focus is on bidder “friendliness,” especially “new bidder” friendliness, to attract liquidity and minimize bidder process overload.

Also, it is suggested that the critical success factor for Auction 66 is not implementing constraints one probably rare or mythical bidder “collusion,” but rather an “all hands on deck” effort by the “legacy” users of the spectrum being auctioned (including the U.S. Navy) to provide some unclassified, relevant detail regarding exactly how “encumbered” the spectrum being auction is from an interference footprint perspective.

Also, one can presume that Federal Agency users who move to replacement spectrum will in the process get more modern equipment with more capabilities. Pipelining the proceeds of the auction to legacy migration projects will stimulate win-win gains to both winning bidders and migration Federal agencies, a point that one hopes is appreciated by OMB and others setting the overall “reserve” price for Auction 66.

Sincerely

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Comments Regarding FCC Auction 66 – Advanced Wireless Services

Executive Summary

The FCC's auction process helps to assure transparency in matching bidders with often very valuable spectrum. However, "transparent" is not necessarily synonymous with "readily understandable." Making the auction process more bidder-friendly and, especially, more new bidder friendly, is strategically important to build liquidity and reduce the risk of bidder overload.

A given FCC auction is in fact a set of diverse micro-auctions of hundreds of spectrum "properties." Even after normalizing prices, these exhibit substantial variability in bidder willingness to pay, with pricing outliers on both the high and low side. Also, some license properties do not attract minimum bids, even though the properties in question seem attractive. Either bidders ran out of money or ran out of knowledge and interest

Auctions 44 and 49 are particularly informative, because Auction 49 offered a "second time around" for properties unsold in Auction 44. A majority of the second-look offerings in Auction 49 sold for more than their minimum bids in Auction 44, often substantially more, which suggests some bidder fatigue in the first auction – too many license properties, too many "encumbrance" stories to research, too little bidder mindshare and, perhaps, too little liquidity. Potentially these factors could impact Auction 66.

Therefore expanding both liquidity and the base of bidder knowledge is important to Auction 66's success. In the interest of streamlining the auction process for bidders, especially for new recruits, as well as expanding the knowledge base, seven points are summarized below and are further described in the main body of this submission.

1. Replace the entire BU (Bidding Unit) scheme with a straight percentage upfront payment, if in fact it is worthwhile operating any upfront payment process.

Having people explain to other people what a "BU" is, how it is used, what the trade-offs are, etc. chews up valuable gray matter and time and is not prospective-bidder friendly. Also, the BU control process caps bidders with respect to a "mythical" dollar quantity (BUs) rather than bidder's actual dollar peak commitments. A straight percentage down payment is far more straightforward.

Note that the up front payments in effect function as a large three-four month non-interest bearing loan to the U.S. government, perhaps in the vicinity of \$2 billion. Whether the government derives a net benefit, given administrative overheads plus the fact that the governments borrowing costs are lower than many bidders and bidder borrowing costs are tax deductible is an open question.

2. Replace “smoothed,” dynamically generated minimum acceptable next bids per license with straight percentage increments for all licenses and rounds

The dynamic creation of bid increment percentages creates unneeded work for everyone apparently little or no gain. For example, for the 216 license properties sold in Auction 38, the smoothing algorithm generated terminal “next bid” percentage increments which had a median value and both quartile boundaries equal to 5% and with 207 of the 216 increments falling in a range of 4.8% to 5.2%. It is far simpler to publish a constant percentage that bidders can embed in their spreadsheets rather than dealing with multiple rates per property per round.

3. Permit bidders to bid in any rounded amounts above the minimum.

It is counterintuitive that the auctioneer dynamically generates “canned” bid amounts per license per round and that a bidder cannot simply bid any number higher than the minimum bid. Again, this complexity makes it more difficult for bidders to use their spreadsheets and other tools. It also encourages in-round bidding ties, which the auction process then “breaks” with another counter-intuitive scheme, a random pick that says, for example, that bidder A’s \$1 million bid beats bidder B’s \$1 million bid. Encourage independent choice in bid amounts.

4. “Tilt” reserve price computation to align with market preference for higher population density locales.

As is well known, normalized prices for spectrum exhibit an upward trend with respect to increasing locale population. Therefore, a “flat line” reserve and minimum initial bid rule such as Auction 66’s proposed $\$.05 \times \text{locale population} \times \text{MHz}$ inevitably generates prices that are comparatively too high at the low end and too low at the high end. A “tilted” rule that aligns with the “per pop” market trend is suggested. Note that, as indicated in the Auction 44/49 combinations,

having properties go unsold is not necessarily a bad result, because the unsold inventory may go for higher prices later.

5. Rather than take on the complexities of packaged bidding, the FCC should perhaps provide somewhat easier bid withdrawal rules.

The complexities of the FCC attempting to formalize “package” bidding are likely to outweigh the gains. Bidders today can package bid, with great flexibility. A modest easing of the bid withdrawal penalties should be as far as the FCC goes to further that cause.

Note that having a license property go “unsold” because of a withdrawn bid is not necessarily, or even usually, a net loss from the seller’s perspective. Additionally, the FCC also should encourage development of secondary markets to enable all bidders to dispose of no longer wanted license properties.

6. It is suggested that the FCC not constrain its level of information-distribution and indeed perhaps even increase it.

The proposed withholding of bidder-identified round results to battle perhaps non-existent bidder collusion is may be “cure” probably worse than the purported disease. For the FCC to attain secrecy regarding who bids for what over the multi-day term of the auction, the FCC must plug every leak and loophole. A nominally secure, but still leaky environment creates a new form of bidder advantage, so every relevant communication, every help desk call, every report program etc., must be sanitized before and throughout the multi-day auction process.

Further, even if the FCC is successful in sanitizing results, most bidding contests consists of two-way license-specific duels between entities with fairly predictable interests, so in the end many bidder identities will be eminently guessable.

With respect to bidder’s Form 175 pre-auction expression of interest in given licenses, it is suggested that bidders be free to bid on any line item in Auction 66. In that case (which some bidders approximate by filing very wide-ranging interest lists), the FCC would no longer need to collect such data on Form 175, saving bidder effort on a not very useful process. It appears that the Form 175 data collection originated to double-check bidders’ advance payments and BU’s, another candidate for simplification.

The FCC's auction system's ability to "filter" feedback to bidders is a user convenience that should be made a self-service function, with the user having ability to expand or contract "field of view" during the auction. The fact that bidders' overlook opportunities may be an unintended result of the Form 175 preference process plus undue filtering.

Besides considering publishing less information, the FCC should also consider the advantages of publishing more – for example, publishing bids in real-time, so that unlike today's practices there could be a succession of competitive bids per round. Moreover, it also should consider permitting "late joining" – e.g., if Day One results indicate to a non-enrolled potential bidder that some properties are undervalued, perhaps prospective bidders should be permitted to join to add their knowledge and bidding power to Day 2 and Day 3, etc. of the auction. Exploiting the FCC's investment in automation in these ways can help expand liquidity.

7. A question not asked by the FCC, but an important one, is whether the prospective bidders for Auction 66 have been provided with enough information regarding "encumbrances" to make the auction effective and efficient. The answer seems to be no.

A critical success factor for Auction 66 is the sufficiency of the information provided to support bidder "due diligence." The 1,100+ license line items in the Auction 66 catalog each potentially intersect with the 1,600+ line items in the NTIA "catalog" of current users of the spectrum being auctioned. Many of those NTIA items are non-geographically aligned or are expressed as group items or are classified, or all three. What bidders need is not great detail regarding incumbents, but Auction 66 line item level "available to promise" dates and geographic diagrams of areas of likely interference.

Although it is certainly appropriate for the FCC and all participants to be vigilant regarding improper bidder behavior and its impact on auction selling prices, the far greater risk to the proceeds of Auction 66 is the difficulty of assessing how the encumbrances impact each of the 1,100 license line items.

Summary

From a prospective bidder's viewpoint, each spectrum property in Auction 66 presents a unique "story" in terms of radio-frequency relevant geography, socio-economic conditions, competitive conditions, tower and other

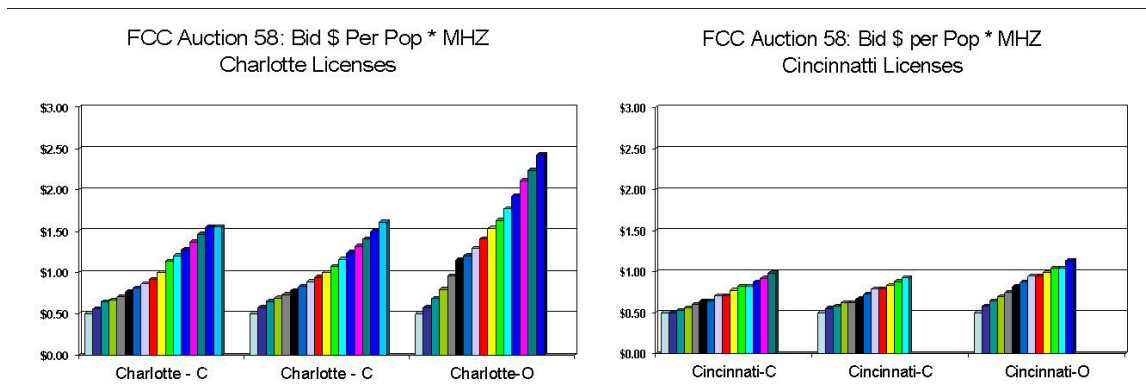
infrastructure availability, spectrum “encumbrances,” time value of money and others. As described above, the FCC can help bidders by simplifying the auction process and increasing the amount of pre-auction information on each license property’s “encumbrances.”

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Background

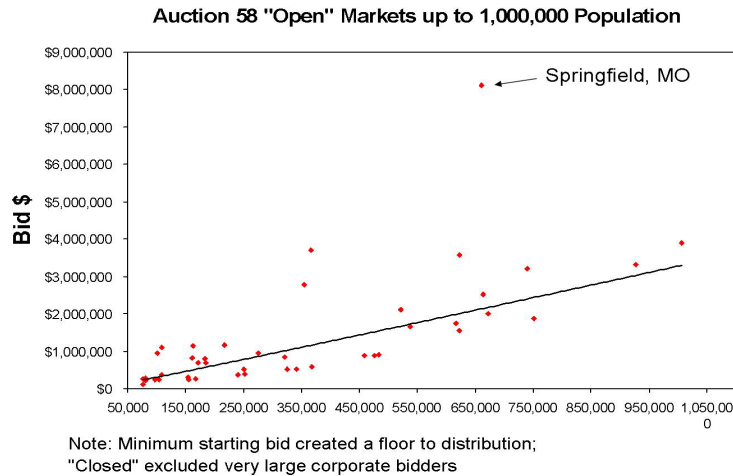
It is the perspective of this paper that pricing and bidding variability within FCC auctions are a consequence of fundamentals such as: 1) the breadth of auction participation, 2) the depth of knowledge available to bidders, 3) the nature of what is being sold, 4) the auction process itself and 5) risk and time value of money considerations. Although it is appropriate for all involved to be vigilant about collusion, that vigilance should not divert attention from improving the fundamentals. Note that one major theme of this paper is that it is not easy to follow some of the rules and associated data involved in the auction process, so the reconstructions below may have less than accounting accuracy.

Below are charts in which each bar represents an Auction 58 bid and each aggregation of bars represents a given license. As illustrated, bidders exhibited a higher willingness to pay for Charlotte licenses as compared to Cincinnati, and the bidders on “closed” (closed to large bidders) drove Charlotte prices higher than the “open” bid license for Cincinnati.



Even more extreme differences were represented by the Albany and St. Louis license bidding, with the St. Louis license for about ten times the Albany price.

The chart below of all licenses sold in Auction 58 in “open” contests for locales with 1,000,000 or below populations indicates substantial “noise” and variation from trend.

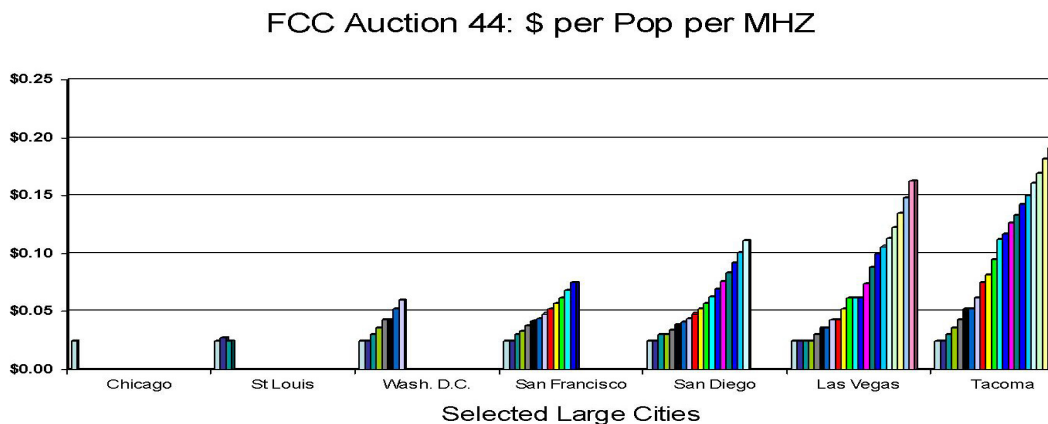


Within this group were outliers on the up side such as the Springfield, Missouri license which sold for over \$8 million when \$2 million would have been more on trend, while at the same time the Joplin, Missouri license did not attract a single bidder willing to ante up the minimum bid of \$247,300.

This variability in results appears reflect differences, real or perceived, in the fundamentals as well as perhaps being symptomatic of a knowledge-thin, liquidity-thin market.

Auction 44 and follow-up Auction 49 experience is relevant to Auction 66 prospects, because all three auctions involve the impact of spectrum "encumbrances." That is, a winning bidder has to wait some number of years for the current users of the spectrum to vacate the property, and that number of years may be difficult to assess.

Substantial variability in bidding patterns was exhibited in Auction 44 of "Lower 700 MHz" spectrum – better known as Channels 54 and Channel 59 (the incumbents).



Note that, although in Auction 59 the St. Louis license was a high flying outlier, in Auction 44 the St Louis “Lower 700” license sold for the bare minimum.

Auction 49 was essentially a second time around for about 240 or so spectrum licenses that did not attract minimum bids in Auction 44. As a result of feedback that the Auction 44 minimums were too high, in Auction 49, the FCC lowered minimum bids on these properties by about 60%. In Auction 49, a majority of these formerly passed over properties sold for more than their original Auction 44 minimum prices – often substantially more.

As an example, the Portland, Maine “Lower 700” license went begging in Auction 44 at a minimum bid price of \$83,000, but in Auction 49 sold for \$187,000. The Albany-Schenectady-Troy license in Auction 44 did not attract the minimum bid of \$249,000, but in Auction 49 sold for \$1,099,000. Note that, for example, the Albany Lower 700 license represents a single-payment, 10-year plus license of great potential use to, for example, retail chains, distributors, manufacturers or perhaps to technology-intensive institutions such as SUNY-Albany or RPI. These and perhaps others could have generated sufficient value to justify paying the Auction 44 minimum bid price of \$249,000.

In all likelihood, these licenses that were unwanted” in Auction 44 become wanted in Auction 49 because in Auction 49 they moved to center stage. At the much larger Auction 44, apparently there was not enough bidder “mindshare” and purchasing firepower to give full attention to all of the licenses offered. The Auction 44/49 sequence is important because Auction 66 has some potential for the same overburdening of bidders resources. It seems likely that a major factor in the variability of auction results may reflect bidder overload – so many license opportunities, so many locale “stories,” and too little time.

Attracting bidders and making them more efficient

A major reason to revise the FCC Auction process is to encourage wider and encourage bidders to focus on substance rather than on learning auction process nuances. The suggestions for change (some of which have been advanced by others) are not judgments between better or “worse, but are aimed at lowering barriers to participation and making it simpler to play, without sacrificing essential controls.

Note that the model “customer” of the FCC auction process is probably monitoring ten or twenty license opportunities and is almost certainly relying on a spreadsheet or other system that integrates auction-specific data with

larger budget and planning data. For this model customer, seemingly minor idiosyncrasies in the FCC auction process can significantly add to that bidder's workload and costs. Also, some of these peculiarities encourage "real" bidders to hire experts and intermediaries to manage this process (and, indeed, multiple bidders may share the same expert). Ideally, the process should become an easy "do it yourself effort for a wider range of bidders.

For the sake of helping the "model" auction process customer, below are some suggestions, several of which have been advanced by others.

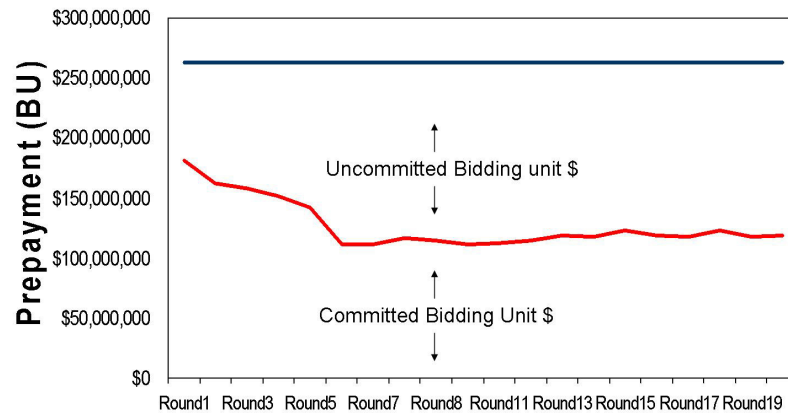
1. Replace "BU's" (Bidding Units) with a Straight Percentage Initial Payment

In FCC auctions, prospective bidders are required to make advance payments to the FCC, which in effect buys them what the FCC terms "bidding unit \$." The current Auction 66 has a column for bidding units per spectrum line item.

What is suggested is that the existing "bidding units" scheme be replaced with a simple requirement that the bidder put up some percentage of the bidder's intended maximum bid exposure. For example, if a bidder expects to "bet a million," and FCC prescribes an upfront percentage of percentage 5%, the bidder would make an advance payment of \$50,000. Any prospective bidder with a spreadsheet can easily compute the payment and, as needed, during the auction track actual commitments versus the size of the initial payment.

The present BU scheme is detrimental to because a lot of people spend a lot of time explaining to each other what a "BU" is and in creating additional spreadsheet artifacts to add them up, etc. Below is a chart bidding units versus bidding commitments in Auction 58, which in effect compares real dollars (the bidders' payments) with an artificial dollar figure – BUs.

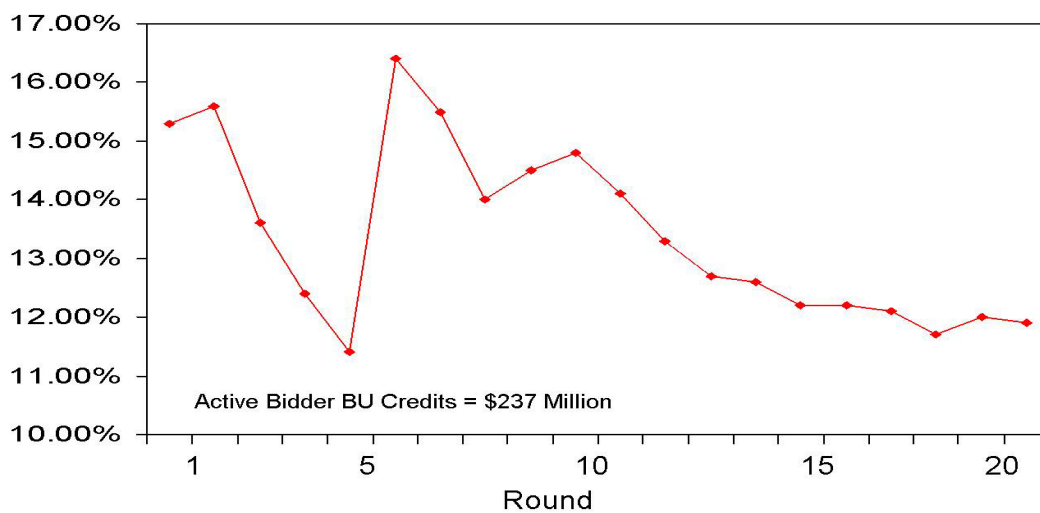
Auction 58 Bidding "Headroom": Comparison of Prepayments and Commitments



The control chart based on BU \$ has no direct linkage to real bid values, making the control at least confusing, if not misleading. For example, by Round 20, bidders are shown as having "committed" as high bids or current round bids about \$150 million versus their "bidding units" of about \$260 million. By round 20, bidders had actually committed about \$2 billion in "real" dollars, so the view below is a better control view.

Eliminating "BUs" does not necessarily weaken controls, because available data permits the below sort of view, based on dollar-to-dollars coverage.

**Auction 58: BU Prepayments As % Of Outstanding Bids
Rounds 1-20**



Excludes advance bid payments by prospective bidders who did not bid

This view retrospectively creates a control chart based on dividing the bidders' advance payments by their current bid commitments, round-by-round through round 20.

Note that the advanced payment system in effect functions as a forced, no-interest loan to the government for about three months. In all likelihood, Auction 66 will generate advance payments in the vicinity of \$1 billion or more, if the relationship between the sum of the catalog "BUs" and bidder advance payments pertains. Presumably the U.S. government will "avoid" in the vicinity of about \$10,000,000 in interest avoidance via Auction 66 advance payments. However, this gain will be reduced or perhaps evaporate entirely in administrative overheads as money sloshes back and forth between the various bidders and the government (some payments will be refunded). Also, bidders are likely to increase their net borrowings at interest rates greater than those paid by the government, thereby increasing their tax deductible interest cost and reducing their tax payments.

Given that the "advance" deposits will pertain to spectrum pairs that are "encumbered" and often of no use to bidders for a year or more, the original objective of minimizing risk to the FCC by unduly trusting buyers would not seem to warrant efforts of this magnitude.

Less is more, and at a minimum eliminating BU artifacts from the pre-auction and auction process will lighten bidders' investment in learning FCC auction procedures. If the process can be abolished in its entirety, that probably would reduce yet another barrier to entry for new bidders.

2. Replace "Smoothed" Dynamically Generated Minimum Acceptable Next Bids With Straight Percentage Increment

In FCC Auctions, the auction system employs a complex automated process that defines the next permitted bid amounts. Again, there is a strong case for simplification.

Although the "smoothing" algorithm is published and a prospective bidder can replicate it in a spreadsheet, in actual use it involves both data-driven inputs regarding prior bidding activity pertaining to a given spectrum license as well on-the-fly auctioneer decided parameter values. Bidders then have to update spreadsheets or other systems, round-by-round and license by license.

On the other hand, all this complexity and hard work by the FCC seems to yield a "next bid" increment of 5%, plus or minus a little noise. For

example, in Auction 38, the 1st Quartile, Median, and 3rd Quartile value of the “next acceptable” minimum bid increment at time of high bid were all 4.6%, even though the 234 spectrum properties ranged greatly in size, extent of bidding interest, round of high bid and other factors.

If the answer is always going to be about 5%, why not forego the round-by-round, spectrum property-by-spectrum property computation and just publish in advance a “next bid” minimum increment of , say, 5%? Bidders benefit by both removing uncertainty and by the simplification of their spreadsheets.

It is by no means assured that 5% is the “right” answer, given the FCC’s interest (and every auctioneer’s interest) in “keep ‘em bidding.” In, say, 50 rounds of active bidding, a 5% increment would drive up prices to more than ten times higher than the initial bid, so it is not surprising that few micro-auction episodes for even “hot” licenses last for more than 10-12 bids and most peter out at many fewer.

3. Permit Bidders to Bid In Any Rounded Amounts Above The Minimum to Reduce the Use of the Random Number Tie Breakers

The present process of prescribing not only next minimum acceptable bids, but all other permitted bid amounts, tends to generate ties. The present auction process then uses a random number generator to declare one of the tied bids to be the provisional winner (and the real winner if no other bids emerge in the following rounds).

The problem is not the tiebreaker, but a process that stimulates ties. Permitting bidders to bid any amount equal to or over the minimum would probably reduce the number of ties and provide a more natural bidding process. It is counterintuitive that a bidder cannot, say, add \$10,000 to the minimum acceptable next bid, and it is not clear why bidders need to be pushed to move in lock step. All of these “counter-intuitive” processes create additional overhead in terms of learning the auction process, perhaps changing spreadsheets and in requiring the person who has, say, \$50,000 left to commit to find licenses where the permitted amounts match up to \$50,000.

Additionally, giving bidders an ability to decide on their individual bid amounts would be a help in demonstrating non-collusion (or, for that matter, in detecting collusion).

4. Reserve Price/Minimum First Bid

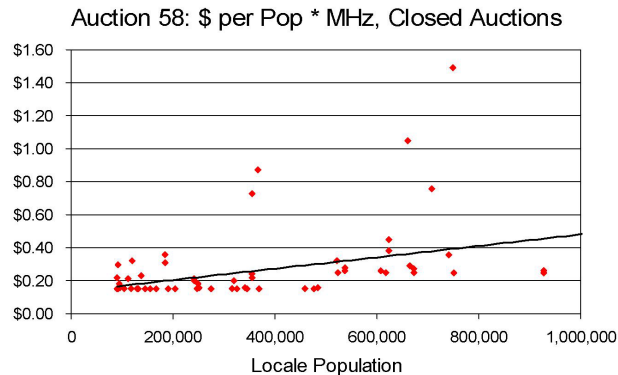
Although the overall thrust of this set of recommendations is “simplification,” with respect to reserve price it is suggested that the FCC model be more complex. Given that the FCC uses minimum initial bid price as its reserve price, this suggestion applies to minimum initial bid price-setting as well.

The problem with using a flat line rule – e.g., for Auction 66, “\$.05 * MHz * pop” to compute reserve price and the minimum opening bid for a given spectrum property is that it

is contrary to market reality. As illustrated in Auction 58, bidders value locales with larger populations more than those with lower ones.

Presumably the upward slope reflects the fact that increased population density reduces cost to serve and perhaps marketing costs as well. Therefore, a flat line

reserve price-setting algorithm cannot avoid being either too high or too low. Instead, what is needed is a more “tilted” rate. That aligns with market preference for higher population locales.



If there is a move from a flat rate to a more “tilted” rate, evidence from the Lower 700 Auctions 44 and 49 suggest that it probably should involve an increase at the larger population end.

5. The FCC should not tackle the complexities of package bidding within Auction 66 or like events, but instead ease slightly the withdrawal penalties and encourage a secondary market

Under today’s rules, bidders can “package bid” on a set of what the bidder regards as related licenses, without the FCC having to invest extra effort. For example, if someone wants to assemble a set of locale licenses that parallel the length of Interstate 80, there is no auction process restriction other than limits of supply.

The FCC already has itself “packaged” Auction 66 by splitting licenses out by locale, regionally, etc., and of course that process was itself complex and somewhat contentious. The dozens of potential package bidders could create thousands of combinations out of the 1,100+ licenses offered.

The only potential need for a “cure” (or “rescue”) is if the “package” bidder wins some but not all of the locales needed, in which the bidder risks being burdened with unwanted piece parts of the overall package. Under today’s rules, the bidder can withdraw winning bids although in many cases have to pay penalties to compensate for lost auction revenue.

If one examines the massive and probably never-ending complexities involved in “packaging,” it appears that relaxing the rules regarding withdrawn bids seems more practical than running parallel auctions or further complicating auctions. It seems appropriate that the package bidder pay fair compensation for withdrawing bids, presuming that the withdrawn bid actually creates a loss.

For example, the rule that the bidder has to make up the difference if a license goes unsold in one auction and then sells for less than the withdrawn bid in the next. However, perhaps the rule should be made symmetric; that is, perhaps the bidder should get at least part of the gain if the license sells for more than the originally withdrawn bid.

The more fundamental solution is for the FCC to encourage development of an active and efficient secondary market for trading these spectrum properties. Such a secondary market might mimic the present auction process, or perhaps be a “break bulk” sort of market where subsets of capacity are exchanged. The existence of efficient secondary markets would address all forms of “buyer remorse” rather than just that associated with broken packages.

The primary market would of course benefit from the existence of a secondary market, because the bidders would have some risk protection.

6. It is suggested that the FCC continue with its prior practice of publishing round results and bidder identities.

Keeping secrets is difficult and usually expensive, so one should not embark on that effort without having success well in hand. Leaks will create huge turmoil and risk, so that a 99% success ends up being no success at all.

In the enterprise and governmental world, there are auctions, often reverse auctions in which sellers make offers to buyers, in which bidder identities are concealed. However, these are usually very short, focused engagements in which buyer identities need to be concealed only for an hour or two. They are also usually very “widget” oriented.

FCC auctions run for multiple days and many rounds, with many people involved. Leaks will simply exacerbate concerns about favoritism or “small versus “large,” etc. Worse still, a commitment to conceal identity creates the potential for a new form of crime, putting everyone involved at risk. Sanitizing processes and data can be expensive, and establishing “need-to-know” access control creates added work and hinders teamwork.

Even if concealment is 100% successful, it is not clear that the cure will be efficacious. A given license typically will attract only two or perhaps three bidders, all of whom probably have some known interest in the given locale. If by inference a bidder ascertains another bidder’s identity, the hoped-for benefits may be lost. Worse still, inference and rumor may stimulate unwarranted complaints from others that the inferences were in fact leaks from the FCC staff, and proving a negative is very difficult.

Examining questions of whether to conceal certain information perhaps should be balanced by examining whether to publish additional information. For example, until the conclusion of a round, round results are not published, so there is no clash between bidders on an intra-round basis. If round results were published as they occur, a bidder could choose to overbid a competitor immediately rather than waiting for the next round. Although all generalizations regarding bidder behavior are speculative, there is certainly reason to believe that immediacy creates a more competitive environment.

Also, one of the potential virtues of the multi-day auction model used by the FCC is that it potentially could enable pre-registered non-participants to join in mid-fray. Overall, the FCC’s present auction design attempts to minimize inactivity and “lurking,” but in fact encouraging sudden entries at, say, Round 40 not only could stimulate activity past Round 40, but before.

It also needs to be considered that FCC auctions are by their nature learning experiences, with respect to discovering the uncertain value of intangible properties. Auctions of widgets and ordinary services typically do not “teach” anyone regarding the widgets or services, but instead merely test unit prices. Auctions such as Auctions 44 and 66 involve some many informational uncertainties that make the auction a discovery process regarding who knows what and who value what background information that directly or indirectly impacts the attractiveness regarding particular licenses. In the case of Auction 66, the fact that a given, respected bidder values a certain license property may trigger interest in other similarly situated properties. The matter people varying perceptions of “encumbrances” will be such a learning experience.

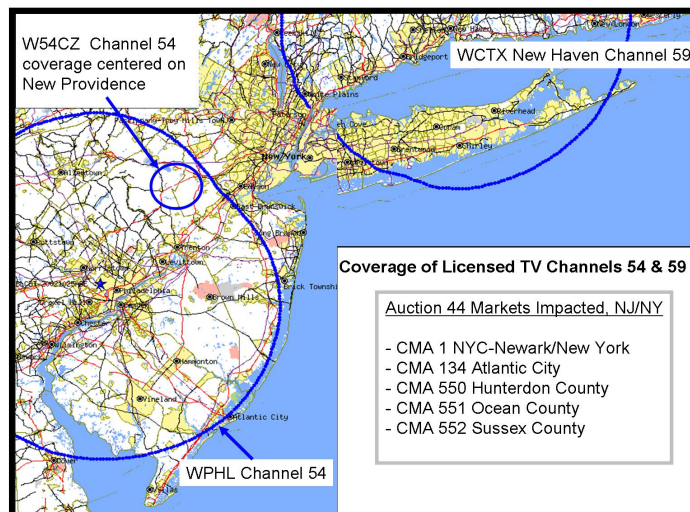
A question which the FCC did not ask is whether the Auction 66 pre-auction Knowledge Base, especially regarding encumbrances, is sufficient to assure success? The answer appears to be no.

The billion-dollar question is whether bidders can determine which of the offered licenses is likely to be available for implementation fairly soon rather than be locked up by some current user of that spectrum. Note that this question is a question, not a criticism, because both the actual migration of current governmental users and the collection of information about that migration present great difficulties. Both the FCC and NTIA are of course acting as information intermediaries between the incumbent agencies and the bidders.

The NTIA listing of spectrum properties that Federal agencies will be vacating includes 1600+ line items. These are typically related to locales – e.g., South Chocolate Mountain, California, but the impact of RF propagation is not easily mapped to whichever of the 1,100+ Auction 66 locales might be impacted. Some migration dates are fairly close in, but spectrum “repurposing” may still have to wait for some trailing current user to migrate. Additionally, some of those NTIA line items are mere group placeholders – e.g., a single line entry represents the FBI’s “Video Surveillance” use of 1.7 gigahertz at unspecified locations throughout the country (and one can understand that lack of specificity). Only 25% of the 49 listed incumbencies in North Carolina are described, primarily because of classified military use in eastern North Carolina.

What is needed is the information needed to relate Auction 66 catalog items to interference and move scheduling. For example, in Auction 44 of “Lower 700” the bidders at least knew that the spectrum being sold was encumbered by TV Channels 54 and 59 and, to lesser degrees, by adjacent channels. The FCC’s Media Bureau provides station

listing and coverage maps, and the adjacent chart shows a sample. It is readily apparent that Auction 44 buyers in, for example, southern New Jersey had to discount the value of “Lower 700” licenses because of the



existence of an incumbent television station using Channel 54 spectrum, but probably did not have to worry about Channel 59 incumbents. Of course, even that level of information is not an iron clad assurance, because there is the potential for interference beyond these published coverage circles. The dates by which various television stations will vacate spectrum are also far from guaranteed.

For Auction 66, the various governmental agencies are presently using the spectrum in many different ways, so relating their present use to license locales is more difficult and records in many cases not accessible. What is important to recognize is that the specificity and quality of the information provided has a substantial impact on bidder willingness to pay. Providing more information to reduce bidder uncertainty translates to a greater gain for the government.

Recommendations

As noted above, it is suggested that the FCC simplify its Auction processes. In part, “simplification” is roughly equivalent to changing processes to make them what a random passerby on the street would expect.” Everyone “expects” some form of reserve price and perhaps some means of assuring that goods are not delivered before the “check is in the mail.” (or the Paypal transaction is completed.” On the other hand, the purchase of “BUs” through the advance deposit process takes some explaining, as does the notion of dynamically smoothed, product-by-product “next bid” computations.

Veterans of FCC auctions have lived with these provisions and by definition have not been deterred from participating. On the other hand, recruiting more participants and more buying power is facilitated by simplification.

Also, providing information regarding “legacy” spectrum usage footprints – areas of interference – is essential to enable bidders to evaluate schedules and risks.

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Colts Neck Solutions LLC